

### Appleby Archaeology Group

On Tuesday October 3rd the first talk of the third year of the Appleby Archaeology Group took place. The title of the talk was Geophysics and Old Carlisle.

Jan Walker, an archaeologist who now teaches, began by telling us that following a series of classes her students had expressed a wish to pursue their interest in Archaeology, and how with the support of the late Prof Barry Jones of Manchester University this had resulted in the formation of an archaeology support group, amateurs who help professionals with projects in this region.

She mentioned a number of sites where the support group had helped and referred in more detail to two major projects, the discovery of a township outside the Roman Fort at Old Carlisle and more recently a project with Timescape to investigate a township outside the Roman Fort at Maryport.

Jan explained that the support group concentrated on examining sites without resort to digging. She then described the methods that were used, field walking, aerial photography and geophysics.

Field walking is the systematic recovery and recording of artefacts found on the surface of ploughed fields. Artefacts may include pottery, flints and coins. The distribution of these is carefully recorded as this may give an indication of past activities. Jan had brought a number of pieces of pottery, which included Saxon, Roman and Medieval examples, for the group to examine.

Aerial photography and the mass of information that can be gleaned from it was discussed. Crops grow more vigorously where there has been a ditch and much less vigorously over stone, these differences are visible as crop marks on photographs. Photographs taken at an oblique angle show shadows for example shadows from bank can be seen. In Cumbria many Iron Age circular settlements and field systems have been seen and of course much evidence of Roman activity.

Two geophysical techniques were explained, one uses a resistivity meter which measure electrical resistance in the ground, high resistance suggests the presence of buildings and low the presence of ditches; the other uses a magnetometer which measures variations in the soil's magnetic characteristics. In each case the ground is systematically scanned and the results recorded. There are several software programmes that can be used to interpret the findings to provide "pictures" of what lies beneath the ground.

These methods are employed where sites have been located or are suspected. Old maps records and ordinance survey maps may provide the initial information.

The second part of the evening provided the group with the opportunity to ask questions, to handle the pieces of pottery, and to look at aerial photographs and the results of the geophysical studies at Old Carlisle and Maryport.

All present were intrigued to see how much information was available houses, roads and larger buildings can be identified and in one photograph there was the suggestion of a Roman harbour on the Solway. All seen without resort to digging!